

Hartmut H. Aumann

Member of the Technical Staff
Atmospheric Sciences Section
Space Science Division
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Education

Bachelor Degree in Physics from the University of Idaho in 1962,
Master's Degree in Nuclear Physics for the University of Oklahoma in 1964.
Ph.D. Space Science, Rice University 1970 Astrophysics

Research Interests

- Astrophysics
- Climate Research

Professional Experience

Jet Propulsion Laboratory (1970 – present)
AIRS Project Scientist 1993-present
IRAS Project Scientist 1976-1993
JPL Technical Staff (1970-1976)

Standard Oil Company of New Jersey, Houston, Texas
1994-1996 Research Scientist (Exploration Division)

Selected Awards

1970 Sigma Xi award for the outstanding dissertation of the 1970 Physics class

1984 NASA Exceptional Achievement Award for the discovery of the first protoplanetary system in orbit around Vega.

2003 NASA Exceptional Achievement Medal for the calibration of the AIRS spectrometer on the EOS Aqua satellite.

Publications (limited to first author publications since 2000)

Aumann, H. H., D. T. Gregorich, S. L. Gaiser, D. F. Hagan, T. S. Pagano, L. Strow and D. Ting, "AIRS Level 1b Algorithm Theoretical Basis Document (ATBD) Part 1 (IR)", 10 November 2000

Aumann, H. H. and T. S. Pagano, "Early results from AIRS on EOS", Proc. SPIE Intern. Symp. on Remote Sensing, Crete, Greece 23 September 2002.

Aumann, H.H. , M.T. Chahine, C. Gautier, M. Goldberg, E. Kalnay, L. McMillin, H. Revercomb , P.W. Rosenkranz , W. L. Smith , D. H. Staelin, L. Strow and J. Susskind, "AIRS/AMSU/HSB on the Aqua Mission: Design, Science Objectives, Data Products and Processing Systems", IEEE Transactions on Geoscience and Remote Sensing, Feb 2003, Vol.41.2. pp.253-264.

Aumann, H.H. , M.T. Chahine, and Diana Barron, "Sea Surface Temperature Measurements with AIRS: RTG.SST Comparison", Proc. SPIE. 5151 Earth Observing Systems VII, August 2003, San Diego (William L. Barnes, editor)

Aumann, H. H., David Gregorich and Diana Barron (2004), "Spectral Cloud-screening of AIRS data: Non-Polar Ocean", Proc. SPIE 49th Annual Meeting on Optical Science and Technology 2-6 August 2004, Denver Colorado 5548-42

Aumann, Hartmut H., David Gregorich, Steve Gaiser and Moustafa T. Chahine (2004)
"Application of Advanced Infrared Sounder Data for Climate Research", Proc. SPIE 5570
Las Palomas, Spain, September 2004

Aumann, H.H., Davig Gregorich and Steve Gaiser (2005) "AIRS hyper-spectral measurements for climate research: Carbon Dioxide and nitrous oxide effects", GRL v32,L05806,doi:10.1029/2004GL021784.

Aumann H.H., S. Broberg, D. Elliott, S. Gaiser and D. Gregorich (2006) "Three years of Atmospheric Infrared Sounder radiometric calibration validation using sea surface temperatures", JGR v111.D16S90, doi:10.1029/2005JD006822.

Aumann, H. H., David Gregorich and Sergio M. DeSouza-Machado (2006) "AIRS Observations of Deep Convective Clouds", SPIE Photonics Conference 13-17 August 2006 San Diego, CA, paper 6301-20.

Aumann, Hartmut H., Alexander Ruzmaikin and Joao Teixeira (2008) "Frequency of severe storms and global warming" GRL v.35, L19805, doi:10.1029/2008GRL034562.